Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A ultrasonic imaging device comprising:

an control unit which sends ultrasonic pulse signals for forming a ultrasonic beam to be given to a scanned object and receives a received ultrasonic beam formed from the ultrasonic pulse signals reflected from the scanned object;

a transmitted ultrasonic beam former which forms transmitted ultrasonic bean in response to the ultrasonic pulse signals;

a ultrasonic probe which receives an output from the transmitted ultrasonic beam former via a transmission/receiving separator and sends the transmitted ultrasonic beam to the scanned body; and

a recieving beam former which receives the ultrasonic pulse signals reflected by the scanned object received with the ultrasonic probe via the transmission/receiving separator and forms the received ultrasonic beam;

wherein the control unit has a program for synthesizing B-mode image data of the scanned object imaged from a plurality of angular directions against the scanned object and displaying the synthesized image, and computes correlation between the received ultrasonic beams for frames imaged from the plurality of angular directions, and determines according to a result of the computation for the correlation whether envelop detection for the received ultrasonic beam should be executed after the image synthesis is carried out using the RF signals or the image synthesis should be carried out by using absolute value signals after the envelop detection.

2. (original) The ultrasonic imaging device according to claim 1, wherein the image synthesis using the RF signals is selected when an amount of displacement of the scanned object obtained as a result of correlation is smaller than the spatial resolution determined according to conditions for transmission and reception of the ultrasonic pulse signals, and the image synthesis using absolute value signals after envelop detection is selected when the amount of displacement of the scanned object obtained as a result of the correlation is larger than the spatial resolution.

3. (currently amended) ~~A ultrasonic imaging device comprising:~~

~~A~~ An ultrasonic imaging device comprising:

~~an~~ a control unit which sends ultrasonic pulse signals for forming ~~a~~ an ultrasonic beam to be given to a scanned object and receives a received ultrasonic beam formed from the ultrasonic pulse signals reflected from the scanned object;

a transmitted ultrasonic beam former which forms a transmitted ultrasonic ~~bean~~ beam in response to the ultrasonic pulse signals;

~~a~~ an ultrasonic probe which receives an output from the transmitted ultrasonic beam former via a transmission/receiving separator and sends the transmitted ultrasonic beam to the scanned body; and

a receiving beam former which receives the ultrasonic pulse signals reflected by the scanned object received with the ultrasonic probe via the transmission/receiving separator and forms the received ultrasonic beam;

wherein the control unit has a program for synthesizing B-mode image data of the scanned object imaged from a plurality of angular directions against the scanned object and displaying the synthesized image, and computes correlation between the received ultrasonic beams for frames imaged from the plurality of angular directions, and computes correlation between the received ultrasonic beams for frames imaged

from the plurality of angular directions, and selects a reference frequency for ~~heterodyne~~ detection for the received ultrasonic beam according to a result of the computation of the correlation, and the control unit sets the reference frequency to a value equal to a central frequency of the ultrasonic pulse signals when the correlation value is equal to a prespecified value.

4. (original) A ultrasonic imaging device comprising:

a ultrasonic imaging device comprising:

an control unit which sends ultrasonic pulse signals for forming a ultrasonic beam to be given to a scanned object and receives a received ultrasonic beam formed from the ultrasonic pulse signals reflected from the scanned object;

a transmitted ultrasonic beam former which forms transmitted ultrasonic bean in response to the ultrasonic pulse signals;

a ultrasonic probe which receives an output from the transmitted ultrasonic beam former via a transmission/receiving separator and sends the transmitted ultrasonic beam to the scanned body; and

a receiving beam former which receives the ultrasonic pulse signals reflected by the scanned object received with the ultrasonic probe via the transmission/receiving separator and forms the received ultrasonic beam;

wherein the control unit has a program for synthesizing B-mode image data of the scanned object imaged from a plurality of angular directions against the scanned object and displaying the synthesized image, and executes heterodyne detection for the received ultrasonic beans for the frames imaged from the plurality of different angular directions at a specified reference frequency, and specification of the reference frequency is set according to an operation previously carried out by a user.

5. (original) A ultrasonic imaging graphic method comprising the steps of:

transmitting ultrasonic pulses from a ultrasonic probe to a scanned object;

receiving the ultrasonic pulses reflected from the scanned object;

synthesizing B-mode image data for the scanned object imaged from a plurality of different angular directions from the received ultrasonic pulses by selecting whether envelop detection for the B-mode image data of the scanned object is carried out using the RF signals or image synthesis should be carried out by using absolute value signals after envelop development;

wherein an amount of relative displacement of reflecting points in the scanned objects is computed by computing correlation between frames for the B-mode image data of the scanned object and the selection is carried out according to the amount of relative displacement.

6. (original) The ultrasonic imaging graphic method according to claim 5, wherein the envelop detection is carried out after the image synthesis using the RF signals when the amount of displacement obtained from the correlation is smaller than spatial resolution determined according to conditions for transmitting and receiving the ultrasonic pulses, and the image synthesis is carried out using the absolute value signals after the envelop development when the displacement rate is larger than the spatial resolution.

7. (original) The ultrasonic imaging graphic method according to claim 5 further comprising the step of selecting a reference frequency of the received ultrasonic beams for heterodyne detection according to a result of the computation for the correlation;

wherein the reference frequency is set to a value equal to a central frequency of the ultrasonic pulses when the correlation is equal to a predetermined value.

8. (original) A ultrasonic imaging graphic method comprising the steps of:

transmitting ultrasonic pulses from a ultrasonic probe to a scanned object;

receiving the ultrasonic pulses reflected from the scanner object;

executing heterodyne detection for the received ultrasonic beams with a prespecified reference frequency;

synthesizing B-mode image data for the scanned object imaged from a plurality of different angular directions from the received ultrasonic pulses; and

displaying the synthesized image;

wherein the reference frequency is set by an operation carried out by a user in the first stage of imaging.